

IN THE CLAIMS

1. (Currently Amended). A direct display portable device comprising apparatus for measuring for measurement of gossypol concentration after color ~~colour~~-development, said apparatus comprising: a) a light source which is a light emitting diode for emitting light of specific a wavelength of 635 nm, b) a means to control intensity of light from the light source, c) a glass cuvette for holding a ~~the~~ test sample through which the light is passed, d) a cuvette sample holder for holding the glass cuvette, e) a photo detector for detecting the light transmitted by test sample, f) a means to convert the output current signal from the photo detector to voltage, g) a log amplifier for amplifying an ~~the~~ output signal of ~~the~~ a converter, h) a calibration circuit enabling display on a display unit, and i) a power supply for supplying power to ~~different~~ components of the device.
2. (Previously Presented) The device as claimed in claim 1, wherein gossypol is selected from the group consisting of deoiled cake, cottonseed and cottonseed oil.
3. (Currently Amended) The device as claimed in claim 1, wherein the ~~determination of the concentration of~~ the gossypol concentration is in milligram/litre and parts per million (ppm) in the display unit of ~~atleast~~ at least 3½ digit display.
4. (Currently Amended) The device as claimed in claim 1, wherein the light source is ~~an LED~~ a light emitting diode of 5 mm having intensity of 125 mcd, view angle of 24°, peak wavelength of 635 nm and power dissipation of 50 mW.
5. (Currently Amended) The device as claimed in claim 1, wherein the means ~~used~~ to control the intensity of light from ~~LED~~ the light emitting diode is a multiturn potentiometer to get 100% transmittance (0% absorbance) of light through distilled water in the cuvette.
6. (Previously Presented) The device as claimed in claim 1, wherein the cuvette used is made up from Borosil glass.

7. (Previously Presented) The device as claimed in claim 1, wherein the path length of the glass cuvette is of 17 mm.

8. (Previously Presented) The device as claimed in claim 1, wherein the cuvette used is screw capped having a diameter of 17 mm, height of 5 cm and capacity of 6 ml.

9. (Previously Presented) The device as claimed in claim 1, wherein the cuvette holder is made up from aluminum alloy, which is blackened.

10. (Currently Amended) The device as claimed in claim 1, wherein the photo detector BPW 21 having package of TO 5, effective area of detection of 5.9 mm diameter wavelength range of 460-750 nm and sensitivity of 7 nA/lux is used to detect the transmitted/absorbed light through the test ~~solution~~ sample.

11. (Currently Amended) The device as claimed in claim 1, comprising means to convert ~~wherein the current~~ signal to voltage ~~converter produces voltage~~ which is directly proportional to current flowing through the converter, which ~~inturn~~ in turn is proportional to the light intensity falling on the detector.

12. (Previously Presented) The device as claimed in claim 1, wherein the means to convert the current signal to voltage signal is a current/voltage converter.

13. (Previously Presented) The device as claimed in claim 1, wherein the log amplifier is TL 441 1C.

14. (Currently amended) The device as claimed in claim 1, wherein the calibration circuit is a 10 K PTO and after log amplification, voltage output is calibrated in terms of gossypol concentration in the test ~~solution~~ sample.

15. (Previously Presented) The device as claimed in claim 1, wherein the power supply is 6-Volt battery for the log, amplifier, photo detector and other integrated chips and a 9-Volt

supply for the display unit.

16. (Previously Presented) The device as claimed in claim 1, wherein the results are displayed on the display units.

17-19. (Cancel)

20. (Currently amended) The device as claimed in claim 1 which is low cost, portable, rugged and measures the concentration of gossypol in the range of $\pm 2\%$ error.